

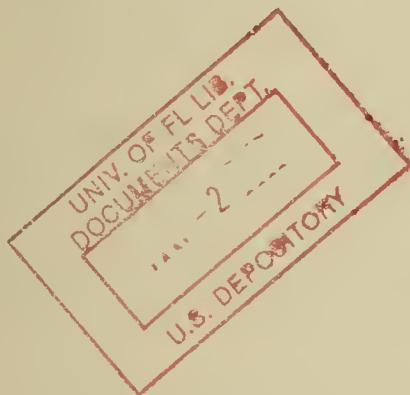
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UNITED STATES DEPARTMENT OF AGRICULTURE
Consumer and Marketing Service
Cotton Division
Washington, D. C. 20250



COTTON FIBER AND PROCESSING TEST RESULTS

CROP OF 1966



CT (1966) 9

December 16, 1966

COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1966

Discussion of Test Results

Cotton Division laboratories of the Consumer and Marketing Service report that average values for all medium staple samples tested to date show a slight increase in fiber length, while length uniformity remains at last season's level. These fibers are a little coarser and stronger than a year ago. Shirley Analyzer nonlint content and picker and card waste are a little higher than last year. Yarns from these samples are slightly stronger, with approximately the same appearance grades, but higher imperfection counts than last season, (Table 1).

Short staple samples tested to date from the Southwestern Area show fibers with about the same length and uniformity, but they are much finer and a little weaker than a year ago. Both Shirley Analyzer nonlint content and picker and card waste average higher than last season. Yarns from these samples have approximately the same strength, a little lower appearance index, and considerably higher imperfection count than last year.

Southeastern Area medium staple samples show about the same length with the same uniformity, but coarser and stronger than last year. Shirley Analyzer nonlint content remains on the same level, while picker and card waste is slightly higher. Yarns from these samples are a little stronger with about the same appearance index, but higher imperfection count than a year ago.

South Central Area medium staple samples tested for this season show longer fibers, with the same uniformity and zero-gage strength as last season. Fiber strength by the 1/8-inch gage test is higher than last season. Micronaire reading is slightly lower than a year ago. Both Shirley Analyzer nonlint content and picker and card waste average slightly above last year's levels. Yarns from these samples are stronger with lower appearance grades and higher imperfection counts than last season.

No additional tests were made on medium staple samples from the Southwestern Area for this reporting period. Values reported in the last bulletin remain unchanged. Compared to the same period last year, they show about the same length, length uniformity and strength, but are coarser. Shirley Analyzer nonlint content and picker and card waste are higher than a year ago. Yarns from these samples show about the same strength, with higher appearance grades and lower imperfection counts than last season.

Western Area medium staple samples tested to date show slightly shorter, coarser and much stronger fibers with the same length uniformity as last season. Shirley Analyzer nonlint content and picker and card waste are higher than a year ago. Yarns from these samples are not quite as strong as last year, but have higher appearance indices and lower imperfection counts.

Western Area long staple samples are longer, with about the same uniformity, fineness and zero-gage strength as last season. Strength by the 1/8-inch gage test is higher than a year ago. Shirley Analyzer nonlint content is a little higher than last year, while picker and card waste is considerably higher. Yarns from these samples show the same strength as a year ago, while appearance grades are lower and imperfections counts much higher.

American Egyptian samples tested this season are longer, with about the same uniformity, fineness and zero-gage strength as last season. Strength by the 1/8-inch gage test is higher than a year ago. Shirley Analyzer nonlint content and picker and card waste are higher than last year. Yarns from these samples are stronger, with about the same appearance grades and imperfection counts as last season.

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This is the ninth of a series of reports on the fiber and processing test results on the 1966 cotton crop. These reports are issued twice each month during the harvesting season and are summarized in a comprehensive report at the end of the season. This 1966 group of reports will give data on the same subject as AIB 309, "Annual Cotton Quality Survey, Summary of Results of Fiber and Processing Tests from Selected Production Areas, Crop of 1965," dated April 1966.

Recent modernization of testing equipment has resulted in slight changes in test levels for some items. To compare previous years' results to those reported for the 1966 crop, the following adjustments should be made:

1. Yarn imperfections for previous years $\times 0.6 = 1966$ levels.
2. Spinning potential yarn no. for previous years $\times 1.1 = 1966$ levels.

An explanation of these changes is contained in the first report of this series, CT (1966) 1, dated August 26, 1966.

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Prepared in the Standards and Testing Branch
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Table 1. --Cotton: Averages of fiber and processing tests from selected gin points in the United States through December 9, 1966 1/

Based on a limited number of samples of modal quality.

Adjusted to 1966 level (Imperfection No. x 0.6) to reflect cleaning action of card crusher rolls.

Table 2.--Cotton, American upland short staple: Quality characteristics by production areas, crop of 1966

Area	Southwestern			
	Cent. Texas	Northwest Texas	Abernathy	Ackerly
State	Lohn	Lankart	57	W. Strmpruf
Production area	W. Strmpruf	75	80	80
Predominant variety				
Percentage of variety at gin				
Triweekly sampling	Second	First	Second	First
RAW COTTON QUALITY				
Grade	designation	MLtSp	MLtSp	MLtSp
Staple length	inches	29/32	1-inch	15/16
Fiber length (Digital Fibrograph):				MLtSp
2.5% span length.....inches	.92	1.01	.94	.95
Uniformity ratio (50/2.5).percent	45	44	44	46
Fiber fineness and maturity:				
Micronaire	reading	4.1	3.3	3.4
Fiber strength and elongation:				4.0
Zero gauge strength	1,000 psi	83	71	74
Zero gauge strength	grams/tex	41.2	35.2	36.7
1/4-inch gauge strength	grams/tex	18.3	18.2	20.7
1/4-inch gauge elongation....	percent	7.0	9.0	8.3
Shirley Analyzer:				
Visible waste	percent	2.4	1.7	1.7
Total visible & invisible..	percent	3.5	3.0	2.6
Color of raw cotton:				
Reflectance	Rd	73.9	73.4	74.1
Yellowness	+b	9.5	10.2	9.8
Ccode	number	353	303	303
PROCESSING RESULTS:				
Picker and card waste.....	percent	7.2	5.2	5.6
Yarn skein strength:				6.0
8s(73.8 tex)	pounds	290	301	310
22s(26.8 tex)	pounds	88	88	93
Average break factor.....		2128	2172	2263
Yarn skein elongation:				2250
8s(73.8 tex)	percent	6.8	9.7	8.5
22s(26.8 tex)	percent	5.9	7.9	7.4
Yarn appearance:				7.2
8s(73.8 tex)	grade	B+	C+	B
22s(26.8 tex)	grade	B	C	C+
Average yarn appearance.....	index	115	95	105
Yarn imperfections: 1/				110
8s(73.8 tex).....	number	46	78	57
22s(26.8 tex).....	number	23	48	38
Spinning potential....2/	Yarn number	-	49	-
				43

1/ Level for previous years x 0.6 = 1966 level.

2/ Level for previous years x 1.1 = 1966 level.

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Table 2.--Cotton, American upland short staple: Quality characteristics by production areas, crop of 1966--Continued

Area State	Southwestern Northwest Texas			
	Afton	Anton	Baileyboro	Rilot 90
Production area				
Predominant variety	Lankart 57			
Percentage of variety at gin	95	100	100	80
Triweekly sampling	First	Second	Third	First
RAW COTTON QUALITY				
Grade	designations	MLtSp	MSP	SLMLtSp
Staple length	inches	15/16	15/16	15/16
Fiber length (Digital Fibrograph):				
2.5% span length.....	inches	.99	.97	.97
Uniformity ratio (50/2.5).percent		45	42	47
Fiber fineness and maturity:				
Micronaire	reading	4.4	2.7	2.7
Fiber strength and elongation:				
Zero gauge strength	1,000 psi	72	72	69
Zero gauge strength	grams/tex	35.7	35.7	34.2
1/2-inch gauge strength	grams/tex	19.0	17.6	19.0
1/2-inch gauge elongation...percent		9.2	9.4	8.8
Shirley Analyzer:				
Visible waste	percent	1.3	2.2	2.2
Total visible & invisible..percent		2.1	4.0	3.6
Color of raw cotton:				
Reflectance	Rd	72.9	69.2	70.0
Yellowness	+b	9.8	11.4	11.1
Code	number	353	355	355
PROCESSING RESULTS:				
Picker and card waste.....	percent	4.4	8.0	7.6
Yarn skein strength:				
8s (73.8 tex)	pounds	298	277	337
22s (26.8 tex)	pounds	89	83	102
Average break factor.....		2171	2021	2470
Yarn skein elongation:				
8s (73.8 tex)	percent	8.5	9.2	7.9
22s (26.8 tex)	percent	7.2	7.8	7.3
Yarn appearance:				
8s (73.8 tex)	grade	B+	C	B+
22s (26.8 tex)	grade	B+	D	B
Average yarn appearance.....	index	120	80	115
Yarn imperfections: 1/				
8s (73.8 tex)	number	39	149	55
22s (26.8 tex)	number	30	93	37
Spinning potential....2/	Yarn number	44	-	-

1/ Level for previous years x 0.6 = 1966 level.

2/ Level for previous years x 1.1 = 1966 level.

Table 2.--Cotton, American upland short staple: Quality characteristics by production areas, crop of 1966--Continued

		Southwestern			
		Northwest Texas			
Baileyboro		Ballinger		Colorado City	
Rilcot	90	Lankart	57	Western Stormproof	Dimmitt
80	85	97	97	90	Gregg 35
Second	Third	First	Second	Second	Third
SLMSp 15/16	SLMLtSp 29/32	SLMLtSp 29/32	SLMLtSp 15/16	SLMSp 15/16	SLMSp 31/32
.91 46	.93 44	.94 44	.95 45	.92 46	.97 45
3.2	4.6	3.8	4.0	3.4	3.3
80	73	81	79	80	82
39.7	36.2	40.2	39.2	39.7	40.7
23.0	18.0	19.8	19.2	22.3	23.0
7.4	8.2	6.2	6.2	7.4	7.4
3.3 4.6	2.2 4.2	2.5 4.4	2.8 4.4	3.6 4.7	4.5 5.8
70.1 10.7 354	70.2 9.4 403	72.2 9.5 353	72.8 9.7 353	65.1 12.0 406	68.9 10.9 405
8.0	7.2	6.6	6.8	8.4	9.0
329	261	286	296	338	351
100	79	90	91	105	109
2416	1913	2134	2185	2507	2603
8.0 6.9	8.0 6.5	6.7 5.9	7.0 6.3	8.1 7.2	8.3 7.0
B	B+	B	B+	B+	B+
B	B	C+	B	B+	B
110	115	105	115	120	115
54 37	41 24	42 21	33 19	57 42	56 40
-	-	40	-	-	-

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Table 2.--Cotton, American upland short staple: Quality characteristics by production areas, crop of 1966--Continued

Area State	Production area	Southwestern		Northwest Texas	
		Dougherty	Friona	Lankart 57	Paymaster 101A
	Percentage of variety at gin	85	85	70	70
	Triweekly sampling	First	Second	First	Second
RAW COTTON QUALITY					
Grade	designation	MLtSp	MLtSp	SLMTg	SLMTg
Staple length	inches	1-inch	31/32	29/32	15/16
Fiber length (Digital Fibrograph):					
2.5% span length.....	inches	1.01	.99	.92	.94
Uniformity ratio (50/2.5).percent		41	43	44	45
Fiber fineness and maturity:					
Micronaire	reading	3.3	3.2	2.5	2.7
Fiber strength and elongation:					
Zero gauge strength	1,000 psi	71	73	79	73
Zero gauge strength	grams/tex	35.2	36.2	39.2	36.2
$\frac{1}{2}$ -inch gauge strength ..	grams/tex	19.5	19.7	19.6	20.9
$\frac{1}{2}$ -inch gauge elongation...	percent	8.3	8.8	7.6	8.2
Shirley Analyzer:					
Visible waste	percent	2.2	1.6	5.6	5.5
Total visible & invisible..	percent	2.8	2.8	7.5	7.0
Color of raw cotton:					
Reflectance	Rd	75.0	75.9	60.0	63.5
Yellowness	+b	9.2	9.2	13.8	12.7
Code	number	303	302	408	407
PROCESSING RESULTS:					
Picker and card waste.....	percent	5.1	5.6	9.8	10.2
Yarn skein strength:					
8s (73.8 tex)	pounds	307	306	312	317
22s (26.8 tex)	pounds	91	91	93	96
Average break factor.....		2229	2225	2271	2324
Yarn skein elongation:					
8s (73.8 tex)	percent	9.5	9.3	8.3	8.8
22s (26.8 tex)	percent	7.9	7.5	7.1	7.3
Yarn appearance:					
8s (73.8 tex)	grade	C+	B	C	C+
22s (26.8 tex)	grade	C	C+	BG	D+
Average yarn appearance.....	index	95	105	75	90
Yarn imperfections: 1/					
8s (73.8 tex)	number	77	65	130	87
22s (26.8 tex)	number	48	51	89	66
Spinning potential... 2/ Yarn number					
		48	-	41	-

1/ Level for previous years x 0.6 = 1966 level.

2/ Level for previous years x 1.1 = 1966 level.

Table 2.--Cotton, American upland short staple: Quality characteristics by production areas, crop of 1966--Continued

		Southwestern					
		Northwest Texas					
Friona		Hereford		Idalou		Kress	
Paymastr 101A		Mixed - Mainly		Lankart 611		Paymastr 101A	
70		Paymaster 202		100		100	
Third		First	Second	Second		Third	Second
LMSp 15/16		SLMLtSp 15/16		SLMSp 1-1/32		MSp 1-inch	
							MSp 31/32
.95		.91		1.01		.98	
45		48		45		43	
3.0		3.7		2.8		2.7	
83		90		80		72	
41.2		44.6		39.7		35.7	
21.9		22.0		22.3		19.6	
7.8		7.7		7.5		9.8	
5.2		3.2		3.4		2.5	
6.9		5.1		4.3		3.4	
65.8		70.8		66.8		70.9	
11.6		10.0		12.0		10.8	
406		404		356		354	
8.4		7.0		7.0		6.6	
349		347		351		298	
108		109		108		90	
2584		2587		2592		2182	
7.8		7.6		8.3		9.8	
6.7		6.7		7.3		8.3	
B		B+		C+		C+	
B		B		C+		D+	
110		115		100		90	
65		53		83		85	
38		30		52		60	
-		48		-		-	

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Table 2.--Cotton, American upland short staple: Quality characteristics by production areas, crop of 1966--Continued

Area State	Production area	Southwestern Northwest Texas Kress			
		Paymstr101A: 90 Third	Paymaster 111: 80 First	Paymaster 111: 80 Second	Paymaster 111: 80 Third
RAW COTTON QUALITY					
Grade	designation	MSp	MSp	MSp	MSp
Staple length	inches	31/32	1-1/16	1-1/16	1-inch
Fiber length (Digital Fibrograph):					
2.5% span length.....	inches	.99	1.06	1.03	1.03
Uniformity ratio (50/2.5).percent		44	45	44	44
Fiber fineness and maturity:					
Micronaire	reading	3.0	3.1	3.0	3.1
Fiber strength and elongation:					
Zero gauge strength	1,000 psi	81	79	80	80
Zero gauge strength	grams/tex	40.2	39.2	39.7	39.7
1/8-inch gauge strength ..	grams/tex	22.0	21.4	20.4	22.0
1/8-inch gauge elongation...	percent	8.1	8.0	7.7	7.8
Shirley Analyzer:					
Visible waste	percent	1.8	1.5	1.8	1.8
Total visible & invisible..	percent	2.9	2.8	3.1	2.8
Color of raw cotton:					
Reflectance	Rd	69.1	71.2	72.0	70.4
Yellowness	+b	11.4	10.9	10.6	11.0
Code	number	355	304	304	355
PROCESSING RESULTS:					
Picker and card waste.....	percent	6.8	5.6	6.4	5.8
Yarn skein strength:					
8s (73.8 tex)	pounds	339	345	342	351
22s (26.8 tex)	pounds	103	105	104	106
Average break factor.....		2489	2535	2512	2570
Yarn skein elongation:					
8s (73.8 tex)	percent	8.6	8.9	9.0	9.2
22s (26.8 tex)	percent	7.7	7.5	7.8	7.7
Yarn appearance:					
8s (73.8 tex)	grade	C	C	C+	B
22s (26.8 tex)	grade	D	D	D+	D+
Average yarn appearance.....	index	80	80	90	95
Yarn imperfections: 1/					
8s (73.8 tex)	number	86	94	108	71
22s (26.8 tex)	number	63	48	72	54
Spinning potential....2/	Yarn number	-	58	-	-

1/ Level for previous years x 0.6 = 1966 level.

2/ Level for previous years x 1.1 = 1966 level.

Table 2.--Cotton, American upland short staple: Quality characteristics by production areas, crop of 1966--Continued

Southwestern							
Northwest Texas							
Lubbock		Maple		Morton		New Home	
Sweatt	75	Maple	Gregg	35	80	Lankart	57
75	75	75	70	80	90	90	90
First	Second	Third	Second	Second	First	Second	
MLtSp 31/32	MLtSp 1-inch	MSp 31/32	MSp 29/32	MTg 15/16	MLtSp 15/16	MLtSp 15/16	
1.00 44	1.00 45	1.03 41	.91 47	.89 46	1.00 42	.97 45	
3.4	2.9	2.8	3.3	3.2	3.6	3.6	
73	75	72	85	82	74	70	
36.2	37.2	35.7	42.2	40.7	36.7	34.7	
19.0	19.4	19.3	22.0	21.2	19.3	17.1	
8.1	8.8	9.3	7.5	7.6	8.5	9.6	
1.9 2.8	2.3 3.8	2.8 4.1	1.6 3.2	2.0 3.7	2.3 3.5	1.6 3.3	
75.9 8.8 302	75.0 9.1 352	69.1 11.4 355	71.6 10.6 354	67.0 12.2 356	74.1 9.1 353	74.3 9.0 352	
5.1	6.8	7.0	7.6	7.2	6.0	6.2	
312 94 2282	320 95 2325	310 93 2263	332 100 2428	320 100 2380	294 87 2133	288 87 2109	
9.3 7.9	9.5 8.1	9.5 8.4	7.6 6.7	7.8 6.9	8.9 7.7	9.1 8.0	
B C 100	C+ D+ 90	C+ D+ 90	B+ B 115	B C+ 105	C+ C 95	B C 100	
63 35	105 55	90 60	49 29	91 59	86 45	73 42	
51	-	-	-	-	47	-	

Continued on page 12

Table 2.--Cotton, American upland short staple: Quality characteristics by production areas, crop of 1966--Continued

Area State	Production area	Predominant variety	Southwestern			
			O'Brien No. Star 80	Northwest Texas Lankart 57 First	Rails Paymstrill 95	100
Triweekly sampling			First	First	Second	First
RAW COTTON QUALITY						
Grade	designation	MLtSp	MLtSp	SLMLtSp	MLtSp	
Staple length	inches	29/32	15/16	1-inch	1-1/16	
Fiber length (Digital Fibrograph):						
2.5% span length.....	inches	.94	.97	.98	1.07	
Uniformity ratio (50/2.5).percent		46	43	45	46	
Fiber fineness and maturity:						
Micronaire	reading	4.7	3.8	3.5	3.4	
Fiber strength and elongation:						
Zero gauge strength	1,000 psi	81	71	70	79	
Zero gauge strength	grams/tex	40.2	35.2	34.7	39.2	
%-inch gauge strength	grams/tex	19.5	18.1	18.9	20.9	
%-inch gauge elongation...percent		5.8	8.6	9.5	8.0	
Shirley Analyzer:						
Visible waste	percent	1.5	1.7	1.5	2.3	
Total visible & invisible..percent		2.8	3.1	3.3	4.0	
Color of raw cotton:						
Reflectance	Rd	70.9	73.2	73.1	74.8	
Yellowness	+b	10.2	9.6	9.6	9.2	
Code	number	354	353	353	353	
PROCESSING RESULTS:						
Picker and card waste.....percent		6.1	5.8	7.2	6.5	
Yarn skein strength:						
8s (73.8 tex)	pounds	268	284	287	342	
22s (26.8 tex)	pounds	81	84	86	104	
Average break factor.....		1963	2060	2094	2512	
Yarn skein elongation:						
8s (73.8 tex)	percent	6.3	9.3	9.3	9.0	
22s (26.8 tex)	percent	5.2	7.4	8.6	7.7	
Yarn appearance:						
8s (73.8 tex)	grade	B+	B	C+	C+	
22s (26.8 tex)	grade	B+	C+	C+	C	
Average yarn appearance.....index		120	105	100	95	
Yarn imperfections: 1/						
8s (73.8 tex)	number	39	62	91	86	
22s (26.8 tex)	number	18	36	53	51	
Spinning potential....2/ Yarn number		36	44	-	58	

1/ Level for previous years x 0.6 = 1966 level.

2/ Level for previous years x 1.1 = 1966 level.

Table 2.--Cotton, American upland short staple: Quality characteristics by production areas, crop of 1966--Continued

Southwestern					
Northwest Texas					
Ropesville	Seagraves	Stamford	Vernon	Whitharrel	Oklahoma
Lockett 4789	Paymaster 202	Lankart 57	Lockett 4789	Rilcot 90	Burns Flat Lankart 57
95	100	98	100	80	80
First	First	Second	First	First	First
MLtSp 1-1/32	MLtSp 15/16	MLtSp 15/16	SLMLtSp 1-1/32	MLtSp 15/16	MLtSp 31/32
1.03 45	.93 46	.95 45	1.04 44	.92 46	.98 45
3.8	3.4	4.6	4.3	4.2	4.2
78	78	74	84	81	74
38.7	38.7	36.7	41.7	40.2	36.7
21.2	21.1	19.2	21.6	21.6	19.5
7.2	7.4	8.4	6.3	7.8	9.0
1.9	2.0	2.1	3.5	1.2	1.6
3.1	3.8	4.0	5.4	2.4	3.5
75.7	74.5	74.1	71.4	72.8	74.0
9.1	9.0	9.1	9.2	9.5	9.4
302	352	353	403	353	353
5.0	5.9	6.0	6.8	4.9	5.4
346	331	306	320	338	301
103	101	91	98	100	92
2517	2435	2225	2358	2452	2216
9.0	7.7	8.3	7.5	8.3	8.5
7.5	6.6	6.7	6.8	7.0	7.2
B	B	B+	B+	B+	B+
C+	C+	B	B	B+	B
105	105	115	115	120	115
48	58	32	41	48	46
30	32	17	27	24	29
57	48	-	49	48	49

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966

Area	Southeastern			
	Alabama			
State	Albertville	Belle Mina	Centre	Dix. King II
Production area	Carolina Queen			
Predominant variety	100	100	100	100
Percentage of variety at gin	Second	Third	Third	Third
Triweekly sampling				
RAW COTTON QUALITY				
Grade designation	MLtSp	SLMLtSp	SLMLtSp	SLMLtSp
Staple length inches	1-1/16	1-1/32	1-1/32	1-1/32
Fiber length (Digital Fibrograph):				
2.5% span length inches	1.10	1.07	1.09	1.06
Uniformity ratio (50/2.5).percent	45	44	43	44
Fiber fineness and maturity:				
Micronaire reading	4.7	4.5	5.1	4.3
Fiber strength and elongation:				
Zero gauge strength 1,000 psi	82	78	81	80
Zero gauge strength grams/tex	40.4	38.5	39.9	39.6
1/4-inch gauge strength ..grams/tex	21.7	20.9	21.0	21.0
1/4-inch gauge elongation...percent	6.0	6.7	6.2	6.0
Shirley Analyzer:				
Visible waste percent	1.1	1.2	1.3	2.3
Total visible & invisible..percent	1.6	1.7	2.2	3.3
Color of raw cotton:				
Reflectance Rd	75.0	70.0	71.2	73.8
Yellowness +b	8.6	9.5	9.9	8.4
Code number	352	403	403	402
PROCESSING RESULTS:				
Picker and card waste.....percent	4.8	4.6	5.0	7.0
Yarn skein strength:				
22 s (26.8 tex) pounds	105	100	94	98
50 s (11.8 tex) pounds	37	35	31	34
Average break factor.....	2080	1975	1809	1928
Yarn skein elongation:				
22 s (26.8 tex) percent	6.7	6.5	5.9	6.0
50 s (11.8 tex) percent	5.0	4.8	4.5	4.8
Yarn appearance:				
22 s (26.8 tex) grade	C+	C	B	C
50 s (11.8 tex) grade	C	D	C+	D+
Average yarn appearance.....index	95	80	105	85
Yarn imperfections: 1/				
22 s (26.8 tex) number	33	35	22	40
50 s (11.8 tex) number	23	21	16	34
Spinning potential....2/ Yarn number	-	-	-	-

1/ Level for previous years x 0.6 = 1966 level.

2/ Level for previous years x 1.1 = 1966 level.

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

Southeastern Alabama						
Cullman	:	Decatur	:	Harpersville	:	Huntsville
Mixed - Mainly	:	Rex Sm L	:	DPL Sm L	:	Mxd-Mnly
Dixie King	:	95	:	70	:	Empire
First	:	Second	:	Third	:	Third
SLM 1-1/32		MLtSp 1-1/32		SLMLtSp 1-1/16		MLtSp 1-1/16
1.07 44		1.09 43		1.07 44		1.09 43
4.5		4.7		4.2		4.5
80		81		72		80
39.7		39.9		35.8		39.7
21.2		20.8		19.9		21.1
5.6		6.2		6.6		6.8
1.3		0.9		1.4		1.8
2.6		1.7		2.4		2.7
73.5 8.4 402		74.8 8.7 352		71.0 8.9 403		73.0 8.2 402
4.6		5.4		5.2		5.6
98 33 1903		95 32 1845		94 32 1834		102 36 2022
6.0 4.5		5.9 4.4		6.1 4.9		6.6 5.1
B C+ 105		B C+ 105		B C+ 105		B+ C+ 110
22 15		23 16		17 14		17 12
61		-		-		-

Continued on page 16

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

Area	Southeastern			
State	Alabama			
Production area	Montgomery	Piedmont	Russellville	Tuscumbia
Predominant variety	Auburn 56	Dix. King II	Mxd. Mnly	Stnvl 213
Percentage of variety at gin	100	100	Stnvl 7A	75
Triweekly sampling	Third	Third	Third	Third
RAW COTTON QUALITY				
Grade	designation	SLMLtSp	SLMLtSp	SLMLtSp
Staple length	inches	1-1/32	1-1/16	1-1/32
Fiber length (Digital Fibrograph):				SLMLtSp
2.5% span length.....	inches	1.04	1.07	1.07
Uniformity ratio (50/2.5).percent		44	45	44
Fiber fineness and maturity:				
Micronaire	reading	4.2	4.3	4.9
Fiber strength and elongation:				4.3
Zero gauge strength	1,000 psi	81	77	77
Zero gauge strength	grams/tex	40.0	38.2	37.9
$\frac{1}{2}$ -inch gauge strength	grams/tex	20.6	21.6	19.2
$\frac{1}{2}$ -inch gauge elongation...percent		5.7	5.9	6.1
Shirley Analyzer:				7.1
Visible waste	percent	1.9	2.3	2.1
Total visible & invisible..	percent	3.8	3.6	3.4
Color of raw cotton:				
Reflectance	Rd	71.0	72.5	68.8
Yellowness	+b	9.9	8.3	8.7
Code	number	403	402	453
PROCESSING RESULTS:				
Picker and card waste.....	percent	5.6	6.6	6.2
5.4				
Yarn skein strength:				
22s (26.8 tex)	pounds	93	101	89
50s (11.8 tex)	pounds	30	35	29
Average break factor.....		1773	1986	1704
Yarn skein elongation:				
22s (26.8 tex)	percent	5.5	6.5	5.6
50s (11.8 tex)	percent	4.3	4.8	4.0
Yarn appearance:				
22s (26.8 tex)	grade	C+	C	C+
50s (11.8 tex)	grade	C	C	C
Average yarn appearance.....	index	95	90	95
Yarn imperfections: <u>1/</u>				
22s (26.8 tex)	number	20	29	23
50s (11.8 tex)	number	18	23	17
Spinning potential.... <u>2/</u> Yarn number				

1/ Level for previous years x 0.6 = 1966 level.

2/ Level for previous years x 1.1 = 1966 level.

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

Southeastern					
Georgia					
Haralson	:	Newnan	:	Winder	
Empire	:	Dixie King	:	Hybee	
100	:	100	:	100	:
First	:	Second	:	Third	:
MLtSp 1-1/16	LM 1-1/16	MLtSp 1-1/16	MLtSp 1-1/32	SLMLtSp 1-1/32	MLtSp 1-1/32
1.10 45	1.08 43	1.06 45	1.06 43	1.06 45	1.06 45
3.8	3.9	4.2	4.2	4.4	4.8
81	80	81	79	76	78
40.2	39.7	40.3	39.2	37.5	38.8
22.0	20.6	20.3	19.1	20.7	20.0
5.7	6.0	5.8	5.9	6.3	6.8
4.0 5.4	2.3 3.4	1.4 2.6	2.1 3.6	1.6 2.7	2.3 3.3
72.7 8.2 402	70.0 8.2 452	71.7 9.1 403	76.5 8.9 503	70.0 8.7 453	68.3 8.8 503
7.1	5.6	5.0	5.8	6.4	5.4
106 38 2116	104 38 2094	99 33 1914	89 30 1729	95 31 1820	92 31 1787
6.3 5.1	6.3 4.7	6.1 4.6	5.8 4.4	6.3 4.6	6.2 4.5
C C 90	C+ C 95	C D+ 85	C D 80	C+ C+ 100	C D+ 85
30 21	28 18	17 18	26 22	26 20	22 22
70	-	-	-	-	-

Continued on page 18

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

Area State	Southeastern			
	North Carolina		Lumberton	
Production area	Dunn	Laurinburg	1032	Mixed - Mainly
Predominant variety	Car. Queen	McNair	80	Coker 100
Percentage of variety at gin			100	
Triweekly sampling	Third	Third	Second	Third
RAW COTTON QUALITY				
Grade	designation	SLM	SLM	MLtSp
Staple length	inches	1-1/16	1-1/16	1-1/16
Fiber length (Digital Fibrograph):				
2.5% span length.....	inches	1.09	1.06	1.09
Uniformity ratio (50/2.5).percent		44	49	44
Fiber fineness and maturity:				
Micronaire	reading	4.7	4.8	4.3
Fiber strength and elongation:				
Zero gauge strength	1,000 psi	78	82	83
Zero gauge strength	grams/tex	38.8	40.4	40.9
1/4-inch gauge strength ..	grams/tex	20.3	22.9	21.3
1/4-inch gauge elongation...	percent	6.0	6.8	6.4
Shirley Analyzer:				
Visible waste	percent	2.1	1.8	1.4
Total visible & invisible..	percent	2.7	2.8	2.3
Color of raw cotton:				
Reflectance	Rd	73.8	73.0	75.2
Yellowness	+b	8.2	8.6	9.4
Code	number	402	402	303
PROCESSING RESULTS:				
Picker and card waste.....	percent	5.4	5.6	4.6
Yarn skein strength:				
22s (26.8 tex)	pounds	100	113	105
50s (11.8 tex)	pounds	35	39	37
Average break factor.....		1975	2218	2080
Yarn skein elongation:				
22s (26.8 tex)	percent	6.3	6.5	6.4
50s (11.8 tex)	percent	5.2	5.0	4.8
Yarn appearance:				
22s (26.8 tex)	grade	B	B	C+
50s (11.8 tex)	grade	C+	C+	C
Average yarn appearance.....	index	105	105	100
Yarn imperfections: 1/				
22s (26.8 tex)	number	23	22	16
50s (11.8 tex)	number	16	17	13
Spinning potential....2/	Yarn number	-	-	-

1/ Level for previous years x 0.6 = 1966 level.

2/ Level for previous years x 1.1 = 1966 level.

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

Southeastern					
North Carolina			South Carolina		
Seaboard	Shelby	Wadesboro	Scotland Neck	Heath Springs	Pendleton
Mxd-Mnly	Coker 413	Car. Queen	Mxd-Mnly	Coker 413	Car. Queen
McNair 1032	100	80	Coker 100	100	100
Third	Third	Third	First	Third	Third
SLM 1-1/16	MLtSp 1-3/32	SLM 1-1/16	SLM 1-1/16	SLM 1-1/16	SLM 1-1/16
1.07 46	1.13 46	1.05 47	1.07 47	1.13 44	1.10 44
4.3	4.2	4.6	4.5	3.8	4.2
80	89	82	83	86	84
39.5	44.2	40.6	41.1	42.4	41.8
21.6	24.0	22.0	22.5	24.5	23.1
7.2	5.5	6.6	7.2	5.9	6.0
1.9	1.5	1.8	2.3	2.9	1.6
2.9	2.9	2.3	3.4	3.9	2.3
75.2	74.0	74.5	73.0	74.3	74.2
8.6	9.0	8.2	8.1	7.1	8.2
352	353	402	402	451	402
5.2	5.4	5.4	5.5	6.8	5.8
110 40 2210	127 47 2572	109 38 2149	110 40 2210	134 50 2724	109 39 2174
6.8	6.5	6.5	7.0	6.8	6.0
5.2	5.3	5.0	5.2	5.5	5.0
C+	B	C+	C	B	C+
C	C+	C+	D+	B	C
95	105	100	85	110	95
22	19	21	29	18	23
19	13	15	19	14	15
-	-	-	66	-	-

Continued on page 20

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

Area	Southeastern			So. Central
	S. Carolina:	Virginia	Arkansas	
State				
Production area	York	Emporia	Clarendon	
Predominant variety	Coker 413	Mixed - Mainly	DPL Sm L	
Percentage of variety at gin	100	Carolina Queen		90
Triweekly sampling	Third	Second	Third	First
RAW COTTON QUALITY				
Grade	designation	SLM	SLM	SLM
Staple length	inches	1-3/32	1-3/32	1-3/32
Fiber length (Digital Fibrograph):				
2.5% span length.....	inches	1.12	1.10	1.10
Uniformity ratio (50/2.5).percent		45	45	47
Fiber fineness and maturity:				
Micronaire	reading	4.1	4.3	4.7
Fiber strength and elongation:				
Zero gauge strength	1,000 psi	88	79	80
Zero gauge strength	grams/tex	43.7	38.9	39.7
1/4-inch gauge strength ..	grams/tex	24.0	21.1	22.5
1/4-inch gauge elongation...	percent	5.2	6.4	6.5
Shirley Analyzer:				
Visible waste	percent	1.6	2.0	0.9
Total visible & invisible..	percent	2.4	3.0	1.7
Color of raw cotton:				
Reflectance	Rd	72.2	74.5	75.7
Yellowness	+b	7.8	8.2	8.8
Code	number	452	402	352
PROCESSING RESULTS:				
Picker and card waste.....	percent	4.6	5.6	5.0
Yarn skein strength:				
22s (26.8 tex)	pounds	119	109	109
50s (11.8 tex)	pounds	43	41	39
Average break factor.....		2384	2224	2174
Yarn skein elongation:				
22s (26.8 tex)	percent	6.3	6.7	6.5
50s (11.8 tex)	percent	5.1	5.3	5.2
Yarn appearance:				
22s (26.8 tex)	grade	C+	C+	B
50s (11.8 tex)	grade	C+	D+	D+
Average yarn appearance.....	index	100	90	95
Yarn imperfections: 1/				
22s (26.8 tex)	number	17	25	12
50s (11.8 tex)	number	14	16	12
Spinning potential....2/	Yarn number	-	-	63

1/ Level for previous years x 0.6 = 1966 level.

2/ Level for previous years x 1.1 = 1966 level.

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

South Central Arkansas					
Hughes	Joiner	Lake City	Leachville	Little Rock	
100	Stoneville 213	85	Stnvl 7A	Mixed	Mainly Stoneville 7A
Second	Third	Second	Third	First	Second
SLM 1-3/32	LM 1-3/32	MLtSp 1-3/32	SLM 1-3/32	SLM 1-3/32	SLM 1-3/32
1.10 46	1.11 45	1.10 46	1.10 45	1.14 46	1.14 46
4.7	4.1	3.8	3.5	4.5	4.2
83 41.2 21.9 6.9	82 40.7 22.1 6.6	81 40.2 21.1 7.2	83 41.2 21.5 6.5	81 40.2 21.4 6.1	81 40.2 22.2 7.4
1.4 2.9	4.3 6.0	2.5 4.0	2.8 4.7	2.6 3.3	2.0 3.5
74.4 8.1 402	71.1 7.8 452	75.5 8.6 352	74.1 8.0 402	74.1 7.8 402	73.8 8.1 402
5.6	8.6	6.6	7.6	5.7	6.2
107 38 2127	107 38 2127	106 38 2116	109 40 2199	109 39 2174	111 40 2221
6.3 4.8	6.2 4.9	7.2 5.6	6.7 5.4	6.4 5.0	6.7 5.2
B+ C+ 110	B C 100	B C 100	B+ D+ 100	A C+ 115	B+ C+ 110
15 10	35 30	30 19	22 16	13 8	16 10
-	-	-	-	68	-

Continued on page 22

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

Area State Production area Predominant variety Percentage of variety at gin Triweekly sampling	South Central			
	Arkansas			
Lonoke	Parkin	Pine Bluff	Searcy	
Delfos 9169	Stnvl 7A	Mxd Mnly	DPL Sm L	
70	100	DPL 45	90	
First	First	Second	First	
RAW COTTON QUALITY				
Grade	designation	SLM	SLM	M
Staple length	inches	1-1/8	1-1/8	1-1/16
Fiber length (Digital Fibrograph):				
2.5% span length.....	inches	1.16	1.14	1.05
Uniformity ratio (50/2.5).percent	46	45	47	46
Fiber fineness and maturity:				
Micronaire	reading	4.5	4.5	4.1
Fiber strength and elongation:				
Zero gauge strength	1,000 psi	81	84	77
Zero gauge strength	grams/tex	40.2	41.7	38.2
1/4-inch gauge strength	grams/tex	22.1	22.0	20.5
1/4-inch gauge elongation...percent		6.2	5.8	7.8
Shirley Analyzer:				
Visible waste	percent	1.9	4.3	2.4
Total visible & invisible..percent		2.7	5.5	4.1
Color of raw cotton:				
Reflectance	Rd	74.9	71.9	77.2
Yellowness	+b	7.3	8.1	8.1
Code	number	401	452	351
PROCESSING RESULTS:				
Picker and card waste.....	percent	5.6	8.1	4.9
Yarn skein strength:				
22s (26.8 tex)	pounds	110	109	109
50s (11.8 tex)	pounds	40	39	38
Average break factor.....		2210	2174	2149
Yarn skein elongation:				
22s (26.8 tex)	percent	6.6	5.9	6.6
50s (11.8 tex)	percent	5.2	4.7	5.2
Yarn appearance:				
22s (26.8 tex)	grade	B+	B+	B+
50s (11.8 tex)	grade	C	C	C+
Average yarn appearance.....	index	105	105	110
Yarn imperfections: <u>1/</u>				
22s (26.8 tex)	number	16	18	16
50s (11.8 tex)	number	11	16	13
Spinning potential... <u>2/</u> ..Yarn number		67	69	-
				68

1/ Level for previous years x 0.6 = 1966 level.

2/ Level for previous years x 1.1 = 1966 level.

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

South Central						
Arkansas		Louisiana				
Vincent	Weona	Wynne	Alexandria	Bossier City	Mira	
Rex	Mxd-Mnly	DPL Sm L	Stnvl 213	DPL 45	DPL Sm L	
90	DPL Sm L	100	80	100	85	
Third	Second	Second	Third	Second	Second	
SLMLtSp 1-1/16	LM 1-1/8	SLM 1-3/32	SLM 1-1/16	SLM 1-1/16	SLM 1-1/16	MltSp 1-1/16
1.07 46	1.12 45	1.12 45	1.03 40	1.10 44	1.07 40	
3.9	4.2	4.5	3.8	4.1	3.8	
81 40.2 21.5 7.3	81 40.2 21.5 7.3	76 37.7 19.8 8.2	82 40.7 21.8 6.8	85 42.2 22.5 6.2	83 41.2 21.9 8.1	
2.4 4.0	3.4 4.9	1.4 2.5	1.6 3.4	1.8 3.3	1.7 3.2	
69.0 9.0 453	72.0 7.9 452	74.9 7.8 402	75.1 7.9 402	75.4 7.6 401	72.3 9.2 403	
6.8	7.6	5.0	6.0	5.6	6.2	
100 36 2000	111 40 2221	115 41 2290	98 33 1903	114 42 2304	108 40 2188	
5.9 4.6	6.7 5.5	7.4 5.7	6.1 4.7	6.5 5.1	7.1 5.5	
B+ C 105	B+ C+ 110	B+ C+ 110	B D+ 95	B+ C+ 110	B+ C 105	
19 14	24 16	13 8	31 26	15 8	22 18	
-	-	-	-	-	-	-

Continued on page 24

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

Area	State	South Central			
		Mississippi			
Production area		Bruce	:	Clarksdale	
Predominant variety		Stoneville 213	:	Stoneville 7A	
Percentage of variety at gin		80	:	99	:
Triweekly sampling		Third	:	Second	:
RAW COTTON QUALITY		Third		Third	
Grade	designation	SLM	SLMLtSp	SLM	SLM
Staple length	inches	1-1/16	1-1/16	1-1/16	1-1/16
Fiber length (Digital Fibrograph):					
2.5% span length.....	inches	1.06	1.10	1.10	1.10
Uniformity ratio (50/2.5).percent		43	43	43	45
Fiber fineness and maturity:					
Micronaire	reading	4.0	3.8	5.1	4.6
Fiber strength and elongation:					
Zero gauge strength	1,000 psi	79	80	92	86
Zero gauge strength	grams/tex	39.2	39.4	45.4	42.7
1/4-inch gauge strength	grams/tex	21.2	21.4	22.4	23.1
1/4-inch gauge elongation...percent		6.6	7.1	5.4	5.1
Shirley Analyzer:					
Visible waste	percent	1.7	2.7	2.4	2.1
Total visible & invisible..percent		2.9	3.7	2.8	3.3
Color of raw cotton:					
Reflectance	Rd	75.5	73.5	75.8	75.5
Yellowness	+b	8.3	8.7	7.6	6.9
Code	number	352	402	401	401
PROCESSING RESULTS:					
Picker and card waste.....percent		4.8	5.6	6.8	6.2
Yarn skein strength:					
22s(26.8 tex)	pounds	104	111	104	108
50s(11.8 tex)	pounds	36	40	35	37
Average break factor.....		2044	2221	2019	2113
Yarn skein elongation:					
22s(26.8 tex)	percent	6.5	7.3	5.6	6.1
50s(11.8 tex)	percent	5.1	5.9	4.1	4.7
Yarn appearance:					
22s(26.8 tex)	grade	C	D+	B	C+
50s(11.8 tex)	grade	D+	D	C	D+
Average yarn appearance.....index		85	75	100	90
Yarn imperfections: <u>1/</u>					
22s(26.8 tex).....	number	28	54	24	20
50s(11.8 tex).....	number	23	38	16	16
Spinning potential. <u>2/</u> ... Yarn number		-	-	-	-

1/ Level for previous years x 0.6 = 1966 level.

2/ Level for previous years x 1.1 = 1966 level.

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

South Central Mississippi					
Clarksdale	Greenville	Stoneville	Greenwood	Hollandale	
DPL Smooth Leaf		213		DPL Sm L	DPL 45
100	100	100	100	100	100
Second	Third	Fourth	Third	Third	Third
SLM 1-3/32	SLM 1-3/32	LM 1-1/16	SLM 1-3/32	SLM 1-3/32	LM 1-3/32
1.11 45	1.14 46	1.09 43	1.09 45	1.11 43	1.11 42
4.2	4.3	3.5	4.4	4.1	3.1
82	82	79	84	82	80
40.5	40.4	39.3	41.7	40.4	39.7
24.2	23.6	21.6	22.8	22.6	24.7
7.8	7.8	6.7	6.1	7.5	6.9
1.8	2.0	3.9	2.4	2.2	4.0
3.0	3.2	5.4	3.8	3.1	5.5
76.8	76.0	74.0	75.5	78.0	74.8
7.5	8.0	8.0	7.0	7.1	7.3
401	352	402	401	401	401
4.8	5.8	7.2	5.6	5.8	8.4
112 40 2232	115 42 2315	109 38 2149	103 35 2008	115 40 2265	118 44 2398
7.2 5.7	7.5 5.9	6.8 5.4	6.4 5.1	7.2 5.6	7.3 6.1
C+ C 95	B C 100	C D 80	C+ D+ 90	C+ C 95	BG BG 60
29 19	20 15	41 26	23 22	21 16	76 57
-	-	68	-	-	-

Continued on page 26

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

Area State	Production area	South Central			
		Mississippi		Indianola	
Predominant variety	DPL Sm L	Stnvl 213	DPL Sm L	Dix. King II	
Percentage of variety at gin	100	90	100	100	
Triweekly sampling	Third	Fourth	Fourth	Fourth	
RAW COTTON QUALITY					
Grade	designation	SLM	SLMLtSp	SLM	LM
Staple length	inches	1-3/32	1-1/16	1-1/16	1-1/16
Fiber length (Digital Fibrograph):					
2.5% span length.....	inches	1.13	1.10	1.08	1.05
Uniformity ratio (50/2.5).percent		44	44	42	43
Fiber fineness and maturity:					
Micronaire	reading	4.1	3.6	3.8	3.9
Fiber strength and elongation:					
Zero gauge strength	1,000 psi	78	77	84	87
Zero gauge strength	grams/tex	38.4	38.3	41.4	43.1
%-inch gauge strength ..	grams/tex	22.4	22.2	22.4	21.7
%-inch gauge elongation...	percent	7.3	6.5	8.2	5.4
Shirley Analyzer:					
Visible waste	percent	1.8	2.2	2.7	3.3
Total visible & invisible..	percent	3.2	3.6	3.8	4.4
Color of raw cotton:					
Reflectance	Rd	78.0	73.2	76.0	72.7
Yellowness	+b	7.3	8.2	7.2	7.4
Code	number	351	402	401	451
PROCESSING RESULTS:					
Picker and card waste.....	percent	5.2	5.7	6.2	6.8
Yarn skein strength:					
22 s (26.8 tex)	pounds	117	107	111	102
50 s (11.8 tex)	pounds	42	37	40	33
Average break factor.....		2337	2102	2221	1947
Yarn skein elongation:					
22 s (26.8 tex)	percent	7.2	6.5	7.0	5.9
50 s (11.8 tex)	percent	5.8	5.2	5.7	4.2
Yarn appearance:					
22 s (26.8 tex)	grade	C	D+	C+	C
50 s (11.8 tex)	grade	C	BG	C	C
Average yarn appearance.....	index	90	70	95	90
Yarn imperfections: <u>1/</u>					
22 s (26.8 tex)	number	21	47	24	38
50 s (11.8 tex)	number	18	30	19	30
Spinning potential... <u>2/</u> ..	Yarn number	-	68	70	58

1/ Level for previous years x 0.6 = 1966 level.

2/ Level for previous years x 1.1 = 1966 level.

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

South Central							
Mississippi							
Indianola	Tuuka	Jackson	Kosciusko	Lyon	Rosedale		
Stnvl 213	Dix. King II	DPL Sm L	Stoneville 213		DPL Smooth Leaf		
100	75	100	90	70	100		
Fourth	Third	Third	Third	Third	Second	Third	
SLM 1-1/16	SLMLtSp 1-1/16	SLM 1-1/16	SLMLtSp 1-1/32	SLM 1-3/32	M 1-1/16	SLMLtSp 1-1/16	
1.08 43	1.09 45	1.06 46	1.05 45	1.11 46	1.10 42	1.10 40	
3.8	4.4	4.4	4.5	4.4	4.3	3.7	
79 39.2 22.0 6.1	79 39.1 21.0 6.3	79 39.2 21.6 6.0	76 37.6 21.1 7.3	83 41.0 23.5 6.5	80 39.6 21.7 7.8	79 39.1 22.6 8.0	
2.0 3.3	1.8 3.0	2.1 3.2	1.9 2.9	3.0 3.9	1.0 2.2	1.3 2.6	
77.0 7.6 351	71.7 8.8 403	76.5 7.4 401	73.0 8.0 452	75.5 7.4 401	78.0 7.6 351	72.3 8.7 402	
5.1	5.4	5.4	5.8	6.0	5.2	7.2	
102 35 1997	101 36 2011	101 34 1961	99 33 1914	111 40 2221	102 35 1997	90 31 1765	
6.1 4.8	6.4 5.0	6.1 4.8	7.0 5.0	6.8 5.3	7.2 5.6	6.4 5.1	
D+	C	C+	C+	C+	C	BG	
D	C	C	C+	D+	D	BG	
75	90	95	100	90	80	60	
37 25	31 23	19 15	23 17	25 22	37 25	137 123	
57	-	-	-	-	-	-	

Continued on page 28

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

Area State	South Central Mississippi			
	Sardis Stnvl 7A 100	Sunflower Stnvl 213 100	Tchula DPL Smooth Leaf 100	
Triweekly sampling	Third	Third	Second	Third
RAW COTTON QUALITY				
Grade	designation	LM	SLM	SLM
Staple length	inches	1-1/16	1-3/32	1-3/32
Fiber length (Digital Fibrograph):				
2.5% span length.....	inches	1.13	1.08	1.09
Uniformity ratio (50/2.5).percent		46	46	44
Fiber fineness and maturity:				
Micronaire	reading	4.8	4.9	3.8
Fiber strength and elongation:				
Zero gauge strength	1,000 psi	81	78	78
Zero gauge strength	grams/tex	40.2	38.8	38.6
$\frac{1}{2}$ -inch gauge strength ..	grams/tex	23.6	22.4	22.7
$\frac{1}{2}$ -inch gauge elongation...percent		6.9	5.9	7.4
Shirley Analyzer:				
Visible waste	percent	4.3	2.2	2.0
Total visible & invisible..	percent	5.2	3.2	3.2
Color of raw cotton:				
Reflectance	Rd	74.5	74.3	76.7
Yellowness	+b	7.6	7.2	7.9
Code	number	401	451	351
PROCESSING RESULTS:				
Picker and card waste.....	percent	7.2	6.2	6.0
Yarn skein strength:				
22s (26.8 tex)	pounds	109	101	110
50s (11.8 tex)	pounds	38	35	39
Average break factor.....		2149	1986	2185
Yarn skein elongation:				
22s (26.8 tex)	percent	6.7	6.4	7.2
50s (11.8 tex)	percent	5.0	5.1	5.5
Yarn appearance:				
22s (26.8 tex)	grade	C+	B	C+
50s (11.8 tex)	grade	C+	C+	D+
Average yarn appearance.....	index	100	105	90
Yarn imperfections: <u>1/</u>				
22s (26.8 tex)	number	23	19	34
50s (11.8 tex)	number	17	16	28
Spinning potential... <u>2/</u> ..Yarn number		-	-	-

1/ Level for previous years x 0.6 = 1966 level.

2/ Level for previous years x 1.1 = 1966 level.

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

South Central					
Mississippi		South Central		Missouri	
Tunica	Tylertown	Water Valley	Campbell	Gideon	Steele
Coker 413	Car. Queen	DPL Sm L	Stnvl 213	Stnvl 7A	Rex Sm L
100	75	95	80	80	65
Third	Third	Third	Second	Second	Second
SLM 1-5/32	MLtSp 1-1/16	SLM 1-1/16	SLM 1-1/16	SLM 1-1/16	SLM 1-3/32
1.15 43	1.05 46	1.08 42	1.08 45	1.09 44	1.11 44
3.9	4.6	3.5	4.2	4.0	3.7
90	77	71	79	85	85
44.5	38.2	35.2	39.2	42.2	42.2
25.3	19.7	22.5	21.9	23.0	22.3
5.5	6.0	7.7	7.4	6.6	7.0
2.5	1.1	1.4	1.8	2.5	2.2
3.7	2.1	2.4	3.2	4.2	3.8
76.5 7.7 401	73.5 8.5 402	77.0 7.6 351	75.0 8.0 402	74.0 8.2 402	73.4 8.0 402
6.6	5.4	5.0	6.6	7.0	6.0
121 44 2431	96 32 1856	113 41 2268	107 38 2127	105 38 2105	116 43 2351
6.8 5.3	6.1 4.7	7.6 6.0	6.8 5.2	6.5 5.2	7.0 5.7
C D+ 85	B C+ 105	D+ D 75	B+ C+ 110	B+ C 105	B C 100
29 25	20 17	32 28	15 11	25 18	20 17
-	-	-	-	-	-

Continued on page 30

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

Area State	South Central Tennessee			
	Covington	Fayetteville	Jackson	Munford
Production area	DPL Sm L	Empire WR61	Dix. King II	Mxd-Mnly
Predominant variety	95	70	90	Auburn M
Percentage of variety at gin	Third	Third	Third	Third
Triweekly sampling				
RAW COTTON QUALITY				
Grade designation	SLMLtSp	SLM	SLM	SLMLtSp
Staple length inches	1-1/16	1-1/16	1-1/16	1-1/16
Fiber length (Digital Fibrograph):				
2.5% span length.....inches	1.08	1.05	1.08	1.08
Uniformity ratio (50/2.5).percent	44	43	44	44
Fiber fineness and maturity:				
Micronaire reading	3.9	3.6	4.1	3.7
Fiber strength and elongation:				
Zero gauge strength 1,000 psi	77	82	81	77
Zero gauge strength grams/tex	38.0	40.8	40.3	38.0
1/4-inch gauge strength ..grams/tex	22.1	20.6	20.2	20.9
1/4-inch gauge elongation...percent	7.7	6.7	6.3	6.2
Shirley Analyzer:				
Visible waste percent	1.5	1.5	1.9	2.2
Total visible & invisible..percent	2.8	2.6	2.7	3.4
Color of raw cotton:				
Reflectance Rd	71.7	77.3	74.0	71.0
Yellowness +b	9.3	7.8	8.0	9.2
Code number	403	351	402	403
PROCESSING RESULTS:				
Picker and card waste.....percent	6.2	4.8	5.2	6.0
Yarn skein strength:				
22s (26.8 tex) pounds	103	106	102	103
50s (11.8 tex) pounds	36	37	35	37
Average break factor.....	2033	2091	1997	2058
Yarn skein elongation:				
22s (26.8 tex) percent	7.0	7.1	6.6	6.6
50s (11.8 tex) percent	5.5	5.4	4.9	5.0
Yarn appearance:				
22s (26.8 tex) grade	D+	C+	C	D+
50s (11.8 tex) grade	D	C	C	D
Average yarn appearance.....index	75	95	90	75
Yarn imperfections: 1/				
22s (26.8 tex) number	41	24	28	48
50s (11.8 tex) number	30	22	21	37
Spinning potential.2/...Yarn number	-	-	-	-

1/ Level for previous years x 0.6 = 1966 level.

2/ Level for previous years x 1.1 = 1966 level.

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

South Central			Western		
Tennessee			Arizona		
Ridgely	Ripley	Savannah	Tiptonville	Casa Grande	
Stoneville 213	Mxd-Mnly	Dixie King II	DPL Sm L	DPL Sm L	
90	Rex Sm L	90	100	100	
Second	Third	Third	Third	Third	Second
MLtSp 1-1/16	SLMLtSp 1-1/16	MLtSp 1-1/16	SLMLtSp 1-1/32	MLtSp 1-1/16	SLM 1-1/16
1.11 43	1.11 42	1.07 45	1.06 42	1.12 43	1.07 44
4.6	3.8	3.8	4.1	4.1	4.8
79	76	80	80	78	87
39.2	37.4	39.8	39.5	38.8	43.2
21.5	21.0	21.0	20.7	22.4	22.6
6.2	6.9	6.4	6.5	8.0	7.0
2.1	1.6	1.6	1.1	1.3	2.1
3.1	2.9	2.5	1.8	2.5	4.0
74.0	74.0	74.5	72.5	73.5	73.5
9.3	9.0	8.6	9.0	9.0	8.2
353	353	352	403	403	402
5.4	5.8	5.2	5.2	5.2	5.6
99 35 1964	105 38 2105	115 41 2290	103 37 2058	114 41 2279	103 36 2033
6.5 5.0	6.9 5.8	6.9 5.4	6.6 5.0	7.2 6.0	6.1 4.6
D+	D+	C	D+	C	B+
D+	D	D	D	D	C+
80	75	80	75	80	110
36 27	47 29	38 25	38 30	31 25	11 8

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Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

Area	Western			
	Arizona		California	
State				
Production area	Peoria	: Queen Creek	: Brawley	: Delano
Predominant variety		DPL Smooth Leaf		: Acala 4-42
Percentage of variety at gin	100	: 100	: 100	: 100
Triweekly sampling	Second	: Second	: First	: Third
RAW COTTON QUALITY				
Grade	designation	SLM	SLM	SLM
Staple length	inches	1-1/16	1-1/16	1-1/16
Fiber length (Digital Fibrograph):				
2.5% span length.....	inches	1.05	1.06	1.04
Uniformity ratio (50/2.5).percent		42	40	39
Fiber fineness and maturity:				
Micronaire	reading	4.8	4.2	4.6
Fiber strength and elongation:				
Zero gauge strength	1,000 psi	88	85	92
Zero gauge strength	grams/tex	43.6	42.2	45.6
%-inch gauge strength ..	grams/tex	22.6	22.6	22.6
%-inch gauge elongation...	percent	6.3	7.3	6.2
Shirley Analyzer:				
Visible waste	percent	2.1	2.0	1.6
Total visible & invisible..	percent	2.7	2.6	2.0
Color of raw cotton:				
Reflectance	Rd	73.0	73.4	74.1
Yellowness	+b	8.4	8.3	8.8
Code	number	402	402	352
PROCESSING RESULTS:				
Picker and card waste.....	percent	6.4	5.2	5.0
Yarn skein strength:				
22s (26.8 tex)	pounds	94	110	101
50s (11.8 tex)	pounds	30	39	34
Average break factor.....		1784	2185	1961
Yarn skein elongation:				
22s (26.8 tex)	percent	5.2	5.9	5.6
50s (11.8 tex)	percent	3.9	4.7	4.2
Yarn appearance:				
22s (26.8 tex)	grade	B	B+	B+
50s (11.8 tex)	grade	C	C+	C
Average yarn appearance.....	index	100	110	105
Yarn imperfections: <u>1/</u>				
22s (26.8 tex)	number	19	18	17
50s (11.8 tex)	number	14	13	13
Spinning potential... <u>2/</u> ..Yarn number		-	-	50

1/ Level for previous years x 0.6 = 1966 level.

2/ Level for previous years x 1.1 = 1966 level.

Table 3.--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1966--Continued

Western					
California					
Five Points	Hanford	Huron	Kerman	Stratford	Terra Bella
		Acala 4-42			
100	100	100	100	100	100
Second	Third	Second	Second	Third	Third
SLM 1-3/32	SLM 1-3/32	SLM 1-1/16	SLM Lt Sp 1-1/16	M 1-3/32	SLM 1-3/32
1.09 46	1.08 47	1.08 45	1.08 43	1.09 44	1.08 46
4.2	4.6	3.5	3.4	4.6	4.3
95 47.1 26.2 5.2	100 49.6 26.0 5.5	94 46.6 25.7 6.2	86 42.7 23.0 5.8	100 49.6 26.4 5.8	98 48.6 25.0 5.7
2.3 3.5	1.8 3.5	2.4 3.8	2.2 3.7	1.7 2.0	2.8 4.6
73.8 7.6 451	73.6 8.1 402	71.9 8.2 452	71.0 9.0 403	75.3 8.5 352	73.1 8.1 402
6.2	5.2	6.4	7.4	5.4	5.8
129 48 2619	127 47 2572	126 48 2586	111 42 2271	133 50 2713	128 48 2608
6.3 4.9	5.9 4.6	6.0 4.9	5.7 4.5	6.0 4.8	6.1 4.9
B+ C 105	B+ C 105	B D+ 95	B+ D+ 100	A B 120	B+ C+ 110
16 12	18 12	24 20	31 20	15 9	16 11
-	-	-	-	-	-

Table 4.--Cotton, American upland long staple: Quality characteristics by production areas, crop of 1966

Area	Western		
	Arizona	New Mexico	
State			
Production area	Duncan	Animas	Las Cruces
Predominant variety	A 1517 D	A 1517 V	A 1517 D
Percentage of variety at gin	98	80	75
Triweekly sampling	Third	Third	Third
RAW COTTON QUALITY			
Grade	designation	SLM	M
Staple length	inches	1-5/32	1-5/32
Fiber length (Digital Fibrograph):			
2.5% span length.....	inches	1.22	1.21
Uniformity ratio (50/2.5).percent		43	44
Fiber fineness and maturity:			
Micronaire	reading	3.1	3.1
Fiber strength and elongation:			
Zero gauge strength	1,000 psi	86	85
Zero gauge strength	grams/tex	42.5	42.0
½-inch gauge strength	grams/tex	26.6	27.8
½-inch gauge elongation....	percent	6.8	6.6
Shirley Analyzer:			
Visible waste	percent	3.8	1.6
Total visible & invisible..	percent	5.5	2.8
Color of raw cotton:			
Reflectance	Rd	76.0	80.3
Yellowness	+b	8.2	7.8
Code	number	352	251
PROCESSING RESULTS:			
Picker and card waste.....	percent	8.5	6.0
Comber waste.....	percent	17.7	16.8
* Yarn skein strength: Carded & Combed			
22s (26.8 tex)	pounds	136 (157)	140 (160)
50s (11.8 tex)	pounds	52 (59)	55 (62)
Average break factor.....		2796 (3202)	2915 (3310)
Yarn skein elongation:			
22s (26.8 tex)	percent	6.8 (7.3)	6.9 (7.4)
50s (11.8 tex)	percent	5.5 (6.3)	5.8 (6.4)
Yarn appearance:			
22s (26.8 tex)	grade	C (C+)	D+ (C+)
50s (11.8 tex)	grade	D (C+)	D (C+)
Average yarn appearance.....	index	80 (100)	75 (100)
Yarn imperfections: 1/			
22s (26.8 tex)	number	53 (17)	45 (14)
50s (11.8 tex)	number	36 (13)	30 (13)
Spinning potential....2/	Yarn number	- -	- -
* Combed yarn data in parentheses			

1/ Level for previous years x 0.6 = 1966 level.

2/ Level for previous years x 1.1 = 1966 level.

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Table 4.--Cotton, American upland long staple: Quality characteristics by production areas, crop of 1966--Continued

Area	Western			
	New Mexico	West Texas	West Texas	West Texas
State	Lovington	Tularosa	Canutillo	Ft. Stockton
Production area	A 1517 BR2	A 1517 C	A 1517 D	A 1517 C
Predominant variety	71	76	90	90
Percentage of variety at gin	Second	Third	Third	Third
Triweekly sampling				
RAW COTTON QUALITY				
Grade designation	MLtSp	M	M	M
Staple length inches	1-5/32	1-5/32	1-1/8	1-5/32
Fiber length (Digital Fibrograph):				
2.5% span length inches	1.22	1.20	1.14	1.18
Uniformity ratio (50/2.5). percent	45	44	41	44
Fiber fineness and maturity:				
Micronaire reading	3.5	3.3	2.7	3.5
Fiber strength and elongation:				
Zero gauge strength 1,000 psi	89	83	85	82
Zero gauge strength grams/tex	44.3	41.0	42.2	40.7
1/4-inch gauge strength .. grams/tex	26.3	27.0	25.8	26.7
1/4-inch gauge elongation... percent	5.7	7.0	6.7	7.0
Shirley Analyzer:				
Visible waste percent	2.6	2.0	1.8	1.3
Total visible & invisible.. percent	4.1	3.3	3.2	2.9
Color of raw cotton:				
Reflectance Rd	74.2	78.2	78.2	78.0
Yellowness +b	9.3	8.0	7.9	8.4
Code number	353	301	301	301
PROCESSING RESULTS:				
Picker and card waste..... percent	7.3	6.8	6.4	6.3
Comber waste..... percent	18.0	18.4	21.9	18.2
* Yarn skein strength: Carded & Combed				
22s (26.8 tex) pounds	135 (156)	133 (155)	134 (157)	128 (149)
50s (11.8 tex) pounds	52 (59)	51 (58)	50 (60)	47 (56)
Average break factor.....	2785 (3191)	2738 (3155)	2724 (3227)	2583 (3039)
Yarn skein elongation:				
22s (26.8 tex) percent	7.0 (7.2)	7.1 (7.5)	6.7 (7.0)	7.0 (7.7)
50s (11.8 tex) percent	6.0 (6.2)	5.8 (6.4)	5.3 (6.0)	5.7 (6.5)
Yarn appearance:				
22s (26.8 tex) grade	BG (C+)	D (C+)	D+ (C+)	D+ (B)
50s (11.8 tex) grade	BG (D+)	D (C+)	D (C+)	D (B)
Average yarn appearance..... index	60 (90)	70 (100)	75= (100)	75 (110)
Yarn imperfections: <u>1/</u>				
22s (26.8 tex) number	69 (24)	47 (17)	30 (10)	35 (10)
50s (11.8 tex) number	48 (18)	33 (15)	22 (9)	25 (10)
Spinning potential... <u>2/</u> .. Yarn number	- -	- -	- -	- -

1/ Level for previous years x 0.6 = 1966 level.

2/ Level for previous years x 1.1 = 1966 level.

* Combed yarn data in parentheses

Table 5.--Cotton, American upland extra long staple: Quality characteristics by production areas, crop of 1966

Area	Western
State	West Texas
Production area	Pecos
Predominant variety	Del Cerro
Percentage of variety at gin	100
Triweekly sampling	Third
RAW COTTON QUALITY	
Grade designation	SLM
Staple length inches	1-5/16
Fiber length (Array):	
Upper quartile length.....inches	1.50
Coef. of variation.....percent	31
Fiber fineness and maturity:	
Micronaire reading	3.2
Fiber strength and elongation:	
Zero gauge strength 1,000 psi	98
Zero gauge strength grams/tex	48.5
$\frac{1}{8}$ -inch gauge strength ..grams/tex	32.6
$\frac{1}{8}$ -inch gauge elongation...percent	5.7
Shirley Analyzer:	
Visible waste percent	3.1
Total visible & invisible..percent	4.4
Color of raw cotton:	
Reflectance Rd	76.0
Yellowness +b	8.0
Code number	352
PROCESSING RESULTS:	
Picker and card waste.....percent	8.0
Comber waste.....percent	22.2
Yarn skein strength: Combed yarns	
50s (11.8 tex) pounds	72
80s (7.4 tex) pounds	39
Average break factor.....	3360
Yarn skein elongation:	
50s (11.8 tex) percent	5.9
80s (7.4 tex) percent	5.0
Yarn appearance:	
50s (11.8 tex) grade	B
80s (7.4 tex) grade	D+
Average yarn appearance.....index	95
Yarn imperfections: <u>1/</u>	
50s (11.8 tex) number	14
80s (7.4 tex) number	13
Spinning potential.... <u>2/</u> . Yarn number	-

1/ Level for previous years x 0.6 = 1966 level.

2/ Level for previous years x 1.1 = 1966 level.

Table 6---Cotton, American Egyptian extra long staple: Quality characteristics by production areas, crop of 1966

Area State Production area	Western Arizona		
	Safford		Stanfield
	Pima S-2	100	100
Percentage of variety at gin	84	: 100	: 100
Triweekly sampling	Second	: First	: Second
RAW COTTON QUALITY			
Grade designation	3	4	4
Staple length inches	1-3/8	1-3/8	1-3/8
Fiber length (Array):			
Upper quartile length.....inches	1.44	1.42	1.48
Coef. of variation.....percent	27	31	29
Fiber fineness and maturity:			
Micronaire reading	3.8	3.9	3.9
Fiber strength and elongation:			
Zero gauge strength 1,000 psi	95	95	100
Zero gauge strength grams/tex	47.0	47.1	49.7
$\frac{1}{2}$ -inch gauge strength ..grams/tex	33.4	35.0	34.7
$\frac{1}{2}$ -inch gauge elongation...percent	7.3	6.1	6.5
Shirley Analyzer:			
Visible waste percent	1.4	3.1	3.5
Total visible & invisible..percent	2.6	4.6	4.6
Color of raw cotton:			
Reflectance Rd	70.5	68.3	66.0
Yellowness +b	10.2	9.8	9.8
Code number	404	454	504
PROCESSING RESULTS:			
Picker and card waste.....percent	6.4	8.1	8.6
Comber waste.....percent	17.7	19.1	19.4
Yarn skein strength: Combed yarns			
50s (11.8 tex) pounds	71	73	74
80s (7.4 tex) pounds	39	41	40
Average break factor.....	3335	3465	3450
Yarn skein elongation:			
50s (11.8 tex) percent	6.2	5.6	5.6
80s (7.4 tex) percent	5.4	5.0	4.6
Yarn appearance:			
50s (11.8 tex) grade	B+	B+	B+
80s (7.4 tex) grade	C+	B	B
Average yarn appearance.....index	110	115	115
Yarn imperfections: 1/			
50s (11.8 tex) number	2	2	2
80s (7.4 tex) number	1	2	1
Spinning potential....2/ Yarn number	-	-	-

1/ Level for previous years x 0.6 = 1966 level.

2/ Level for previous years x 1.1 = 1966 level.

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Table 6.--Cotton, American Egyptian extra long staple: Quality characteristics by production areas, crop of 1966--Continued

Area	Western	
	New Mexico	West Texas
State		
Production area	Las Cruces	El Paso
Predominant variety	Pima S-2	Pima S-1
Percentage of variety at gin	76	70
Triweekly sampling	Second	Second
RAW COTTON QUALITY		
Grade designation	2	2
Staple length inches	1-3/8	1-3/8
Fiber length (Array):		
Upper quartile length.....inches	1.36	1.40
Coef. of variation.....percent	30	29
Fiber fineness and maturity:		
Micronaire reading	3.5	3.5
Fiber strength and elongation:		
Zero gauge strength 1,000 psi	94	101
Zero gauge strength grams/tex	46.7	49.9
$\frac{1}{8}$ -inch gauge strength ..grams/tex	33.2	33.0
$\frac{1}{8}$ -inch gauge elongation...percent	7.7	7.1
Shirley Analyzer:		
Visible waste percent	1.5	1.3
Total visible & invisible..percent	2.7	2.4
Color of raw cotton:		
Reflectance Rd	70.5	70.5
Yellowness +b	10.7	10.7
Code number	354	354
PROCESSING RESULTS:		
Picker and card waste.....percent	7.2	6.6
Comber waste.....percent	18.5	19.6
Yarn skein strength: Combed yarns		
50s (11.8 tex) pounds	69	72
80s (7.4 tex) pounds	38	40
Average break factor.....	3245	3400
Yarn skein elongation:		
50s (11.8 tex) percent	6.0	6.3
80s (7.4 tex) percent	5.4	5.0
Yarn appearance:		
50s (11.8 tex) grade	B+	B+
80s (7.4 tex) grade	C+	C+
Average yarn appearance.....index	110	110
Yarn imperfections: <u>1/</u>		
50s (11.8 tex) number	2	2
80s (7.4 tex) number	1	2
Spinning potential.... <u>2/</u> . Yarn number	-	-

1/ Level for previous years x 0.6 = 1966 level.

2/ Level for previous years x 1.1 = 1966 level.

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